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GB A 2096451

GB 1471887

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GB 1602186

GB 1260801

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(58) Field of search

F4S

(54) Radiator fitting

(57) The radiator fitting embodies a valve, a bearing surface and a rotationally symmetrical convex surface, to replace a conventional radiator-water supply pipe valve connector, to be used in conjunction with support-hinge brackets and radiator retaining brackets, to enable the radiator to be pivoted from the vertical position to the horizontal position, with negligible water loss, and without draining the radiator.

FIG. 1.

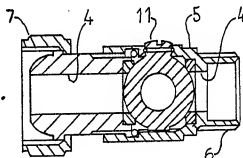
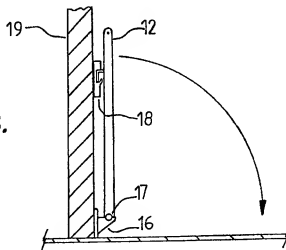
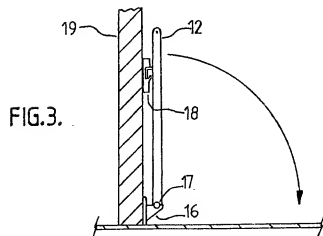
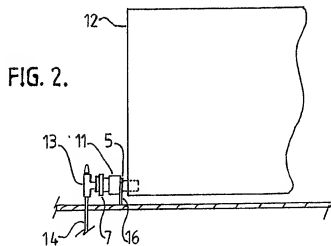
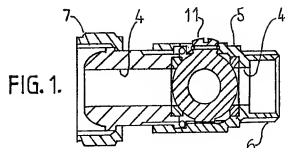


FIG. 3.





SPECIFICATION

Radiator fitting

- 5 The present invention is a fitting for radiators, particularly but not exclusively for domestic hot-water radiators.

- Wall-mounted hot-water radiators are a widely-used form of heating system and are wholly satisfactory until it is desired to decorate the adjacent wall. However they are fixedly-mounted structures and cannot readily be moved without either draining the water contained therein or alternatively tolerating a considerable leakage of water, which is particularly undesirable in a domestic setting. The domestic user may therefore prefer to leave the wall behind the radiator undecorated.

- Clearly the existing design of radiator fitting is unsatisfactory in this respect. It is therefore an object of the present invention to devise an improved form of radiator fitting which eliminates or significantly reduces any water loss when the radiator is moved from its position of use.

- The radiator fitting according to my invention comprises an open-ended length of tubular conduit, having at at least one end a rotationally symmetrical surface of a swivel joint and having also valve means to close the conduit.

- Hot-water radiators of the known type are often connected at each end to a fixed pipe, leading to or from the main hot water circuit, by means of a swivel joint. Such a joint has abutting surfaces which are rotationally symmetrical and it is therefore possible, by slackening both joints, to swing a vertical radiator away from its vertical position. However, even if the radiator inlet and outlet valves, when provided, are first closed, it is potentially possible for the whole contents of the radiator to leak through the slackened joint. By using the fitting according to my invention, it is possible to leave one end thereof fixedly secured to the radiator and, with the valve closed, to swing the radiator and fitting about the swivel joint at the other end of the fitting. In this way, the radiator remains isolated by the valve from the slackened joint and the maximum potential leakage may be limited to the contents of the fitting between the valve and the slackened joint.

- It is not necessary that the joint at each end of the fitting be a swivel joint, since that adjacent to the radiator is not required to swivel but remains fixed during movement of the radiator.

- If desired, the fitting itself may incorporate a bleed valve between the flow valve and the end of the fitting remote from the radiator, to enable controlled draining of the small quantity of water contained therein. Alternatively, such a bleed valve, separate from the fitting accord-

water circuit adjacent to that end of the fitting.

- Since my novel fitting now makes it possible for radiators to be installed with the specific aim of being free to swing away from an adjacent wall, it is possible, and indeed advantageous, to modify the radiator counting so as to assist such swinging. Thus the radiator may be mounted on one or more brackets, for example two such brackets, by means of hinge mountings which permit pivoting of the radiator about said mountings. The pivoting component of the hinge may be secured to, or incorporated in, the radiator itself or alternatively it may be associated with the radiator fitting of my invention or with the adjacent joint or connector thereto. For example, the connector may be extended or otherwise modified so as to provide a surface upon which the radiator may pivot.

- My invention will now be described with reference to the accompanying drawings in which:—

- Figure 1 illustrates in elevation, and partly in section one embodiment of the radiator fitting according to my invention.

- Figure 2 illustrates in front elevation, one end of a wall mounted hot-water radiator in association with a fitting as shown in Fig. 1.

- Figure 3 illustrates an end elevation corresponding to Fig. 2 viewed from the left thereof.

- Referring first to Fig. 1, the illustrated fitting takes the form of an open-ended length of tubular brass conduit having a bore 4 extending through it to permit passage of water to or from the radiator.

- The right hand side has a threaded portion 6 to enable connection to the radiator, adjacent to the threaded portion 6 is a smooth bearing surface 5.

- At the left hand side, remote from threaded portion 6 the fitting has a convex surface shaped to mate with the rotationally symmetrical concave surface of a conventional brass radiator valve, not shown in Fig. 1 but identified by numeral 13 in Fig. 2 and connected by locknut 7.

- Finally, the fitting embodies a ball valve 11 operated externally by means of a screwdriver to interrupt the flow of water through bore 4.

- Referring now to Fig. 2 and Fig. 3, as shown the fitting is located between radiator 12 and a valve 13 on the central heating pipe 14, being secured to valve 13 by locknut 7.

- The radiator 12 is supported against the wall 19 by means of brackets 16 and 18 to which the radiator is hinged at its lower corners at pivots 17, bracket 16 is formed to accept bearing surface 5 Fig. 1. Bracket 18 is designed to receive the normally fitted metal suspension strips on standard panel radiators.

- In order to gain access to the wall behind the radiator with the system in use, valve 11 is

valve 13 is closed to retain water content in supply pipe 14, then locknut 7 is loosened sufficiently to allow radiator 12 to pivot. The same operation is carried out at the other end of radiator 12 where an identical fitting is mounted in the circuit.

The radiator 12 can then be released from brackets 18 and will be able to pivot in the direction of the arrow, Fig. 3 by the desired amount, for example, into a generally horizontal position.

If desired, additional support brackets may be provided between the ends of the radiator, by means of which the radiator may be held relative to the wall (eg. by chains) in an intermediate position between the vertical and the horizontal. Since a domestic hot-water radiator full of water is generally heavy, such intermediate support assists the lowering of the radiator in the movement from vertical to lowered position.

It will be readily appreciated that my invention has the significant advantage of enabling a radiator to be pivoted away from an adjacent wall, while limiting the maximum water loss to that contained in the short space (1 to 2 inches or less) between valve 11 and valve 13.

30 CLAIMS

1. A fitting specifically designed for radiators water flow connection, embodying a means to arrest the radiator water content, a rotationally symmetrical convex surface, and a hinge bearing surface, employed with radiator retaining brackets and formed hinge support brackets, to enable radiators to be pivoted from vertical position to horizontal position.

2. A fitting as claimed in claim 1 where a valve is contained therein to control the radiator water content.

3. A fitting as claimed in claim 1 and claim 2 which is provided with a rotationally symmetrical convex surface remote from radiator fitting threads to enable connection to a standard brass radiator valve.

4. A fitting as claimed in claim 1, claim 2, and claim 3 which is provided with a smooth bearing surface, adjacent to radiator connection threads to enable the radiator to be mounted on brackets formed to accept the bearing surface.

5. A fitting as claimed in claim 4 where formed support brackets and radiator retaining brackets, when affixed to a wall are employed to enable radiators to be retained in vertical position or pivoted to horizontal position.

6. A fitting substantially as described herein with reference to Figs. 1-2-3 of the accompanying drawing.